

# A Study on the Effect of Covid-19 Pandemic on the Mental Health of College Students of Madhya Pradesh

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## ABSTRACT

The Covid-19 broke out as the coronavirus disease in 2019. No one had any intuition of the impact of the coronavirus disease on the youth who found themselves in the most difficult and uncomfortable environment of their lives. The present research paper represents the sudden surge in counselling cases reflecting in mental disorders viz-a-viz mood disorders and anxiety disorders. The authors are sharing their counselling cases of college going students, the mental health issues of the education sector impacted by Covid-19 the age group of 17 to 25 is focused upon. Since the paper is on mental health issues, the authors shall leave the analysis of causative factors for another time.

**KEYWORDS:** Covid-19 Pandemic, Counselling cases, Mental health issues, and World Health Organizations (WHO)

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## INTRODUCTION

In 2019, when Covid -19 broke out as the coronavirus disease, no one had even the remotest idea about the devastation that was in store for mankind all over the world. Since the London plague in 1920, it has been the worse pandemic, claiming lacks of lives in India alone, apart from creating temporary or permanent health issues for people running into millions. Coronavirus causes a typical varitey of pneumonia with the disease being categorized as a severe, acute respiratory syndrome. The general incubation period of the virus as recorded by the health experts was two to four days. The virus was mainly transmitted by respiratory droplets and skin to skin contact with an infected person. Materials like metals, clothes, even food packaging, vegetables, fruits etc were also known to transmit the virus making people infected. By now we all know that the initial outbreak was from Buhan in China in 2019. By January the World Health Organization (WHO) had already declared the Covid -19 outbreak as public health emergency demanding international concern. The exponentials and rapid spread of this viral infection in several

countries across the world earned it the category of pandemic, declared by WHO in March 2020.

As per Government records Kerala reported the 1<sup>st</sup> Covid-19 case in January itself. The way the menace spread throughout the country and the sordid trail it left behind is history. The medicos, the government, the health workers were least prepared for this, leave alone the public. Other than health hazards and loss of life it seemed that life itself had come to a standstill. The socio economic, business, education, government machinery, production, transport etc, were all affected. Basically, the lockdown, night curfews, house arrests, travel restrictions etc, had a profound impact on all segments of society, of all age groups. The fear of getting the disease loomed larger than life and was more intense than the infection itself. This led to several mental health issues which became more and more profound in more and more people as the 1<sup>st</sup> wave of covid progressed into the 2<sup>nd</sup>, deadlier one. The age group of 17 to 25, being focused upon, went through an extremely stressful state for which they were least prepared. From a comfortable

protected life and happy exciting explorations of youth they suddenly found themselves in the most difficult and uncomfortable environment of their lives. This research paper represents the sudden surge in counselling cases reflecting mental disorders, viz-a viz mood and anxiety disorders. The causes were many, such as, loss of parents, beloved ones, friends, lockdown of colleges, abrupt shift from offline to online educations, general promotions which put a question mark on their credibility in terms of academic performance, economic crisis, social exclusion, and so on. Since the paper is on mental health issues, the authors shall leave the analysis of causative factors for another time.

According to World Health Organization (WHO) one in four people in the world is affected by mental or neurological disorders at some point in their lives. Around 450 million people currently suffer from such conditions, placing mental disorders among the leading causes of ill health and disability worldwide.

Mental health disorders include depression, anxiety, psychosis, neurosis, dementia and substance abuse related disorders. As per the National Mental Health Survey, Madhya Pradesh State report – 2015-16, the weighted prevalence of mental morbidity in adults was 13.9%. this prevalence is higher than the National Prevalence of Mental Morbidity. As per the survey, an estimated 66 million adults are in need of mental health care services in the state of Madhya Pradesh.

## **Mental Health Issues**

The mental health issues discussed in this paper have been taken from the following two categories with description of the typical mental disorders during counselling sessions of pre and post covid – 19 pandemic.

### **I. Mood Disorders**

Mood Disorders are psychological disorders characterized by prolonged and marked disturbances in mood that affect how people feel, what they believe and expect, how they think and talk, and how they interact with others. There are mainly two types of mood disorders, depressive disorders and bipolar disorders.

#### **1.1. Depressive disorders**

There are two types of disorders, major depressive disorders and persistent depressive disorders. Major depressive disorder is marked by five or more symptoms of a major depressive episode lasting more than 2 weeks. Persistent depressive disorder (dysthymia) is a depressive disorder that involves as few as two symptoms of a major depressive episode but in which the symptoms persist for at least 2 years.

According to the Global Burden of Diseases, Injuries and Risk Factor Study 2017 (GBD 2017), depression is a common mental disorder and one of the main causes of disability worldwide. Globally, an estimated 264 million people are affected by depression. As per the National Mental Health Survey, Madhya Pradesh State Report – 2015 – 16, the point of prevalence of major depressive disorder was 2.7% whereas in Madhya Pradesh the point of prevalence of major depressive disorder was 1.4%.

When suffering from a mood disorder, people may have thoughts of death or thoughts about committing suicide, known as suicidal ideation. Having thoughts of suicide or making a plan to carry it out may indicate a risk for suicide. Certain behaviours can suggest serious suicidal intent and can serve as warning signs such as giving away possessions, saying goodbye to friends or family members, talking about death or suicide generally or about specific plans to commit suicide, threatening to commit suicide and rehearsing a plan for suicide. Globally, suicide is the second leading cause of death among those aged between 15 and 29 years. As per the National Crime Record Bureau (NCRB) report 2014, Madhya Pradesh reported 9039 suicides which accounts for 6.9% of the total number of suicides in India. In the same year, Madhya Pradesh saw a suicide rate of 11.9 per 1 lakh population compared to the national rate of 10.6 per 1 lakh population. The NCRB 2014 report places Madhya Pradesh in the 17<sup>th</sup> position in the matter of rate of suicides and has placed the state in the alert category as its rate exceeds the national average.

Neurological factors related to depression and suicidal ideation include low levels of activity in the frontal lobes, and abnormal functioning of various neurotransmitters such as dopamine, serotonin, and norepinephrine. Psychological factors include a bias towards paying attention to negative stimuli, dysfunctional thoughts, rumination, a negative attributional style, and learned helplessness. Social factors that are associated with depressive disorders and suicide include stressful life events, social exclusion problems with social interactions or relationships.

#### **1.2. Bipolar Disorders**

It is a mood disorder in which a person's mood is often persistently and abnormally upbeat or shifts inappropriately from upbeat to markedly down.

##### **1.2.1. Maniac Disorder**

It is a disorder which lasts at least one week characterised by abnormally increased energy or activity and abnormal and persistent euphoria or expansive mood or irritability.

### 1.2.2. Cyclothymic Disorder

It is characterised by chronic, fluctuating mood disturbance with numerous periods of hypomanic symptoms alternating with depressive symptoms, each of which does not need the criteria for its respective mood episodes.

## II. Anxiety Disorders

Anxiety is a sense of agitation or nervousness, which is often focused on an upcoming possible danger. Anxiety disorder is a category of psychological disorders in which the primary symptoms involve fear, extreme anxiety, intense arousal, and/or extreme attempts to avoid stimuli that lead to fear and anxiety. These emotions or the efforts to avoid experiencing them can create a high level of distress, which can interfere with normal functioning. Anxiety disorders frequently co - occur with depression. The major anxiety disorders are Generalized Anxiety Disorder (GAD), Phobia, Panic Attack, Obsessive Compulsive Disorder (OCD), and Post Traumatic Stress Disorder (PTSD).

### A. Generalized Anxiety Disorder (GAD)

It is an anxiety disorder characterized by uncontrollable worry and anxiety about a number of events or activities, which are not solely the result of another disorder. The symptoms include: excessive anxiety and worry, difficulty to control the worry, restlessness or feeling keyed up, being easily fatigued, difficulty on concentrating, irritability, muscle tension, and sleep disturbances.

### B. Phobia

Phobia means intense fear. There are three types of phobias such as specific phobia, social phobia and agoraphobia.

**Specific phobia** is an anxiety disorder characterized by excessive or unreasonable anxiety about or fear related to a specific situation or object.

**Social phobia** is an anxiety disorder characterized by intense fear of public humiliation or embarrassment. It is a marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others.

**Agoraphobia** is a persistent avoidance of situations that might trigger panic symptoms or from which help would be difficult to obtain like using public transportation, being in open space or enclosed space, standing in line or being in a crowd etc.

### C. A Panic Disorder

It is an anxiety disorder characterized by frequent, unexpected panic attacks, along with the fear of further attacks and possible restrictions of behaviour in order to prevent such attacks. The symptoms

include: palpitations, pounding heart or accelerated heart rate, sweating, trembling or shaking, sensations of shortness of breath, chest pain or discomfort chills or heat sensations

### D. Obsessive Compulsive Disorder (OCD)

It is a disorder characterised by one or more obsessions or compulsions. OCD is marked by persistent and intrusive obsessions or repetitive compulsions that usually corresponds to the obsessions. People with OCD feel driven to engage in the compulsive behaviours, which provide only brief respite from the obsessions. Common obsessions include anxiety about contamination, order, losing control and doubts. The common compulsions include washing, ordering, counting and checking.

### E. Post-Traumatic Stress Disorder (PTSD)

It is a traumatic stress disorder. It is characterised by four types of persistent symptoms:

Intrusive re-experiencing of the trauma, avoidance of stimuli related to the event, negative thoughts, mood and dissociation and increased arousal and reactivity.

DSM – 5 includes two types of trauma related disorders: acute stress disorder and post-traumatic stress disorder.

### Objectives

1. To study the effect of Covid 19 pandemic on the psychological wellness of college students of Madhya Pradesh.
2. To study the effect of Covid 19 pandemic on mood disorders among college students of Madhya Pradesh.
3. To study the effect of Covid 19 pandemic on anxiety disorders among college students of Madhya Pradesh.

### Data Collection

The case study Performa was used for recording the demographic details as well as the mental health issue of each counselling case. This is a structured standardised Performa used by the authors for counselling and subsequent follow ups.

### Sample

Since the authors are sharing their counselling cases of college students, the mental health issues of the education sector impacted by Covid-19 the age group of 17-25 is being focused upon the sample of the study was collected in two parts. The 1<sup>st</sup> was the pre-covid time period from 2017 -18, till 2018 -19. During this period the counselling cases diagnosed in the categories of mood disorders and anxiety disorders were used as pre covid sample. The counselling cases of the above two categories from



2020 -21, and 2021 – 22 were taken as post covid sample.

### Tools

To measure the level of depressive disorder and suicide among college students, Beck's Depression Inventory was used. It's a valid questionnaire with good reliability and validity which can be self-scored. The scoring scale is given at the end of the questionnaire itself. The scoring explains the level of depression in the client. The total number of items in the questionnaire are 21 and the highest possible score is 63 and the lowest is zero. The score indicates the level of depression. Any score between 1-10 indicates normal, 11- 16 mild mood disturbance, 17-20, borderline clinical depression, 21-30 moderate depression, 31-to 40 severe depressions, and over 40 extreme depressions.

To measure the level of anxiety among college students, generalized anxiety disorder- 7 scale was used. The GAD developed by Spitzer et al.2006 is a valid and efficient tool to measure GAD and it is self-rated.

### t-Test

For data analysis, t-test was used in the study. In research, where sample size is small ( $n \leq 30$ ) and the

population is normally distributed, but population standard deviation is unknown, then the t-test is used.

In hypothesis, involving t-test, it is calculated for the sample data and then compared between the critical value based on t distribution (read from t-table providing values of t for different levels of significance for different degree of freedom) for accepting or rejecting the null hypothesis.

Formula used for hypothesis testing for comparing two related samples:

$$t = \frac{\bar{d}\sqrt{n}}{s}$$

where,

$\bar{d}$  = the mean of the difference

s = standard deviation of the difference

$$s = \sqrt{\frac{\sum d^2 - n(\bar{d})^2}{n - 1}}$$

### Hypothesis of table 1

$H_0$ : Covid 19 pandemic has caused no mood disorder among college students of M.P

$H_1$ : Covid 19 pandemic has caused mood disorder among college students of M.P

**Table 1**

Mental Disorders – Mood Disorder				
Type	Pre-Covid	Post-Covid	d	d <sup>2</sup>
Major Depressive Disorder (MDD)	93	98	+5	25
Persistent Depressive Disorder (PDD)	88	89	+1	1
Suicidal Ideation (SI)	81	80	-1	1
Manic Disorder	80	87	+7	49
Bipolar Disorder	90	96	+6	36
Cyclothymic Disorder	106	112	+6	36
			$\sum d=23$	$\sum d^2=148$

$$\bar{d} = \frac{\sum d}{n} = \frac{23}{6} = 3.833$$

$$s = \sqrt{\frac{\sum d^2 - n(\bar{d})^2}{n - 1}}$$

$$= \sqrt{\frac{148 - 6(3.833)^2}{6 - 1}}$$

$$= 3.45$$

Now

$$t = \frac{\bar{d}\sqrt{n}}{s}$$

$$= \frac{3.833 \times \sqrt{6}}{3.45}$$

$$= \frac{3.833 \times 2.45}{3.45}$$

$$= 2.72$$

Table value of  $t_{0.05}$  with degree of freedom = 2.57

The calculated value of  $t(2.72)$  is greater than the table value (2.72). Therefore, the null hypothesis is rejected. Hence, Covid 19 has caused mood disorder in college students in Madhya Pradesh.

### Hypothesis of table 2

$H_0$ : Covid 19 pandemic has caused no anxiety disorder among college students of M.P.

$H_1$ : Covid 19 pandemic has caused anxiety disorder among college students of M.P

**Table 2**

Mental Disorder – Anxiety Disorders				
Type	Pre-Covid	Post-Covid	d	d <sup>2</sup>
Generalised Anxiety Disorder (GAD)	53	159	+106	11236
Specific Phobia	28	40	+12	144
Social Phobia	31	60	+29	841
Agora Phobia	48	47	-1	1
Obsessive Compulsive Disorder (OCD)	33	32	-1	1
Panic Attack	42	126	+84	7056
Post-Traumatic Stress Disorder (PTSD)	50	98	+48	2304
			$\Sigma d=277$	$\Sigma d^2=21583$

$$\bar{d} = \frac{\Sigma d}{n} = \frac{277}{7} = 39.57$$

$$s = \sqrt{\frac{\Sigma d^2 - n(\bar{d})^2}{n-1}}$$

$$= \sqrt{\frac{21583 - 7(39.57)^2}{6}}$$

$$= 42.08$$

Now,

$$t = \frac{\bar{d}\sqrt{n}}{s}$$

$$= \frac{39.57 \times 2.65}{42.08}$$

$$= 2.49$$

Table value of  $t_{0.05}$  with 6 degree of freedom = 2.44

The calculated value of  $t(2.49)$  is greater than the table value (2.44). Therefore, the null hypothesis is rejected. Hence, Covid 19 pandemic has caused anxiety disorders in college students of Madhya Pradesh.

### Findings

1. The findings of the study show that, Covid 19 pandemic had a significant effect on the psychological wellness of the college students of Madhya Pradesh.
2. The study also shows that Covid 19 pandemic had a significant effect on the mood disorders among college students of Madhya Pradesh.
3. The study also shows that Covid 19 pandemic had a significant effect on the anxiety disorders among college students of Madhya Pradesh.

### Conclusion

1. There is an effect of Covid 19 pandemic on psychological wellness of college students of Madhya Pradesh.

2. There is an effect of Covid 19 pandemic on mood disorders among college students of Madhya Pradesh.
3. There is an effect of Covid 19 pandemic on anxiety disorders among college students of Madhya Pradesh.

### Recommendations:

The following recommendation are put forth by the authors on the basis of the outcome of this research for various stakeholders within and without the education system.

#### I. Stakeholders

1. Appointing counsellors in schools and college. Necessary actions should be taken to appoint counsellors in schools, and colleges both Private as

well as government, due to the need of promoting mental health.

2. Mental Health Professionals should be promoted. There is a huge gap between the mental health concerns and the availability of trained mental health professionals. It is up to the government to provide opportunities for mental health professionals so that the demand and availability of mental health professionals can be balanced.

### 3. Counselling Centre.

Mental health issues and support from mental health professionals are considered as a taboo even today. Proper psychoeducation and general awareness about guidance and counselling in the village and Tehsils are need of the hour.

### 4. Multi-disciplinary team approach

From the experience in the field of counselling, higher education, we suggest that mental health can be nurtured well with a team of multidisciplinary professional including psychologists, clinical psychologists, rehab psychologist, counsellors, social work, professionals, occupational therapists and the like.

### II. Higher Education;

Majority of universities, both government and private are not having departments of Psychology. Looking at the need of mental health professionals, we suggest to the Higher Education department of every state to give emphasis on establishing Psychology department in every university.

### Reference

- [1] Robin S. and Stephen M. Abnormal Psychology, 2<sup>nd</sup> Ed. 2014. Worth Publishers, New York.
- [2] James E. and Barbara A. Psychopathology, Foundations for a Contemporary Understanding, 4<sup>th</sup> Ed. 2016. Routledge Publications, New York.
- [3] Nikopoulou VA, Holeva V, Parlapani E, Karamouzi P, Voitsidis P, Porfyri GN, et al. Mental health screening for COVID-19: a proposed cutoff score for the Greek version of the Fear of COVID-19 Scale (FCV-19S). *Int J Ment Health Addict* 2020 Nov 10:1-14
- [4] Chakraborty K, Chatterjee M. Psychological impact of COVID-19 pandemic on general population in West Bengal: A Cross-Sectional study. *Indian J Psychiatry* 2020;62(3):266-272
- [5] Wathélet M, Duhem S, Vaiva G, Baubet T, Habran E, Veerapa E, et al. Factors associated with mental health disorders among university students in France confined during the COVID-19 pandemic. *JAMA Netw Open* 2020 Oct 01;3(10):e2025591
- [6] Mirzaei M, Yasini Ardekani SM, Mirzaei M, Dehghani A. Prevalence of Depression, anxiety and stress among adult population: results of Yazd Health Study. *Iran J Psychiatry* 2019 Apr;14(2):137-146
- [7] Brooks S K, Webster R K, Smith L E, Woodland L, Wessely S, Greenberg N, et al. The Psychological Impact of Quarantine and how to Reduce it: Rapid Review of the Evidence. *Lancet* 2020 Mar 14;395(10227):912-920
- [8] Pietrabissa G, Simpson SG. Psychological consequences of social isolation during COVID-19 outbreak. *Front Psychol* 2020;11:2201
- [9] Zhang J, Lu H, Zeng H, Zhang S, Du Q, Jiang T, et al. The differential psychological distress of populations affected by the COVID-19 pandemic. *Brain Behav Immun* 2020 Jul;87:49-50
- [10] Sathe H, Mishra K, Saraf A, John S. A cross-sectional study of psychological distress and fear of COVID-19 in the general population of India during lockdown. *Ann Indian Psychiatry* 2020;4(2):181.
- [11] Doshi D, Karunakar P, Sukhabogi JR, Prasanna JS, Mahajan SV. Assessing coronavirus fear in Indian population using the Fear of COVID-19 Scale. *Int J Ment Health Addict* 2020 May 28:1-9
- [12] Pradeep BS, Gururaj G, Varghese M, Benegal V, Rao GN, Sukumar GM, et al. National Mental Health Survey of India, 2016 - rationale, design and methods. *PLoS One* 2018;13(10):e0205096
- [13] Rehman U, Shahnawaz MG, Khan NH, Kharshiing KD, Khursheed M, Gupta K, et al. Depression, anxiety and stress among Indians in times of Covid-19 lockdown. *Community Ment Health J* 2021 Jan;57(1):42-48
- [14] Shah SMA, Mohammad D, Qureshi MFH, Abbas MZ, Aleem S. Prevalence, psychological responses and associated correlates of depression, anxiety and stress in a global population, during the coronavirus disease (COVID-19) pandemic. *Community Ment Health J* 2021 Jan;57(1):101-110